

M S - 8809

nVIDIA GeForce 256

Graphics Accelerator

User's Guide

VERSION 1.0
2000/03/03 ROC



FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

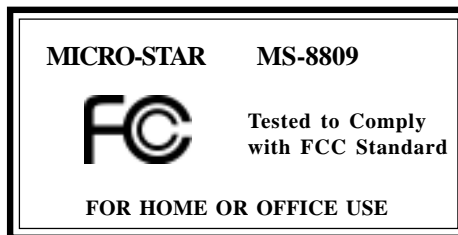
Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2

Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.

VOIR LA NOTICE D'INSTALLATION AVANT DE RACCORDER AU RESEAU.



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Chapter 1

MS-8809 nVIDIA GeForce 256 Graphics Accelerator

1. Overview

MS-8809 nVIDIA GeForce 256 Graphics Accelerator is the ultimate 3D graphics processors. With ultra speed up graphics processing for richer 3D graphics, they also free up the CPU cycles to improve the non-graphics aspects of PC entertainment such as more realistic physics calculations, better artificial intelligence(AI), and more.

2. Features

Chip List:

- ❑ **nVIDIA Ge-Force** : 2D & 3D accelerator processor.

General Features

- Optimized for Direct3D acceleration with complete support for DirectX 5.0, 6.0 and 7.0
- Unparalleled 256-bit Single Chip GPU(Graphics Processing Unit)
- Video acceleration for DirectShow™, MPEG-1, MPEG-2 and Indeo®
- 350MHz Palette-DAC
- 128-bit Memory Interface
- NTSC and PAL digital output port supporting external digital TV encoders
- AGP 4x/2x interface with full sideband support
- Support Ge-Force 32MB Frame Buffer
- High Quality HDTV/Digital Flat Panel supported
- Integrated Transform. Clipping, lighting, and setup

Award-Winning 3D/2D performance

- 4 Pipeline 3D Graphics Engine
- 2D Graphics Acceleration
- Fast 32-bit VGA/SVGA support
- High performance implementation of Direct3D and OpenGL standards

High quality video playback

- Full-Screen, full-frame DVD playback
- Video acceleration for DirectShow, MPEG-1, MPEG-2, and Indeo
- Video DMA for Efficient VIP Host operations

Full Software Support

- Windows® 95 and 98 Display Drivers
- Windows® 2000, Windows® NT 4.0 Display Drivers
- OpenGL ICD for Windows® 2000, Windows® NT 4.0, and Windows® 95 and 98
- Linux

Supports super high resolution graphics modes

- 640x480 8/16/32 bit colors with 240Hz
- 800x600 8/16/32 bit colors with 240Hz
- 1024x768 8/16/32 bit colors with 200Hz
- 1152x864 8/16/32 bit colors with 150Hz
- 1280x1024 8/16/32 bit colors with 120Hz
- 1600x1200 8/16/32 bit colors with 85Hz
- 1920x1200 8/16/32 bit colors with 75Hz
- 2048x1536 8/16 bit colors with 60Hz

3. System Requirements

To install MS-8809 VGA card, your computer system needs to meet the following requirements:

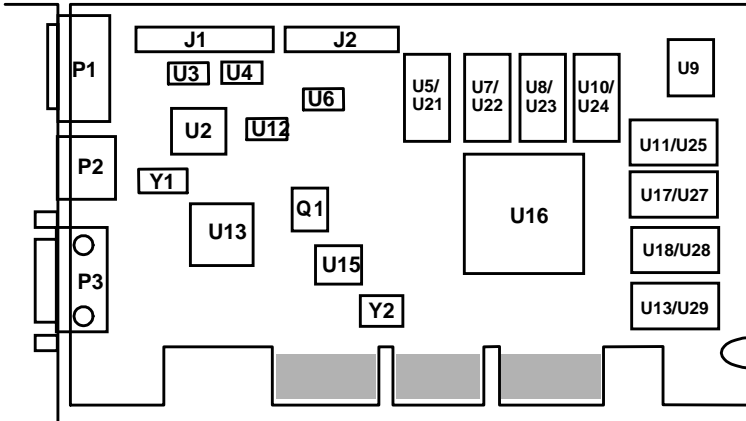
Computer	Intel Pentium® processor, Intel Celeron or Pentium® II/III processor or compatible system
Expansion Slot	AGP slot
Monitor	VGA Support, minimum 640x480 resolution
Operating system	Windows® 95/98, Windows® NT 4.0, Windows® 2000.
CD-ROM	Double Speed or Higher

4. Package Contents

Before installing the MS-8809 VGA card, please check to make sure that your package is complete:

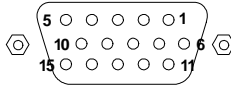
- VGA card
- CD
 - drivers and applications on CD
 - documentation on CD

5. Card Layout



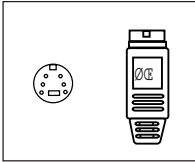
P1	DVI Connector
P2	S-Video Connector
P3	D-SUB 15 pin
J1/J2	VIP port
U2	Sil154
Y1	Crystal 13.50MHz
U13	Brooktree 868/869 TV-Encoder
Q1	MOS-FET
U16	nVIDIA Ge-Force 256 Graphics Processor
Y2	Crystal 14.31818MHz
U15	VGA BIOS
U9	Regulator
U3/U4/U5/U7	PI5C 3245
U5/U7/U8/U10/ U11/U17/U18/U13	1M*16 SDRAM component side
U21/U22/U23/ U24/U25/U27/ U28/U29	1M*16 SDRAM solder side
U26	LTi1575 solder side

6. DB 15 Pin Connector



Analog Video Display Connector(DB15-S)	
Pin	Signal Description
1	Red
2	Green
3	Blue
4	Not used
5	Ground
6	Ground
7	Ground
8	Ground
9	Not used
10	Ground
11	Not used
12	SDA
13	Horizontal Sync
14	Vertical Sync
15	SCL

7. S-Video Connector



If your television has the S-Video jack, please use the S-Video cable because it will provide the best picture quality.

Once you've located the connector, please use the S-Video to connect the VGA card to your TV or VCR.

If you use the S-Video connector, you may need to select the S-Video mode on your television.

8. Vertical Refresh Rate

Resolution	Color	Vertical Refresh (Hz)
640x480	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200,240
800x600	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200,240
1024x768	8bit, 16bit, 32bit	60,75,85,100,120,140,160,200
1280x1024	8bit, 16bit, 32bit	60,75,85,100,120
1600x1200	8bit, 16bit, 32bit	60,75,85
1920x1200	8bit, 16bit, 32bit	60,75
2048x1536	8bit, 16bit	60

Chapter 2

Installation of nVIDIA Ge-Force VGA Driver

1. Driver

1.1 Install Enhanced Drivers for Windows® 95/98

After installing the MS-8809 VGA card into the mainboard, Windows® 95/98 will auto-detect changes in your hardware configuration; this will install the Standard VGA Driver. To get the maximum performance, you need to install the MS-8809 driver.

Before installing MS-8809 driver, you need to install the Windows® 95 OSR2 USB supplement to support the AGP function. Windows® 98 need not install this.

To install MS-8809 enhanced driver, please follow these steps:

Step 1: Insert the **CD_Title** provided into your CD-ROM drive.



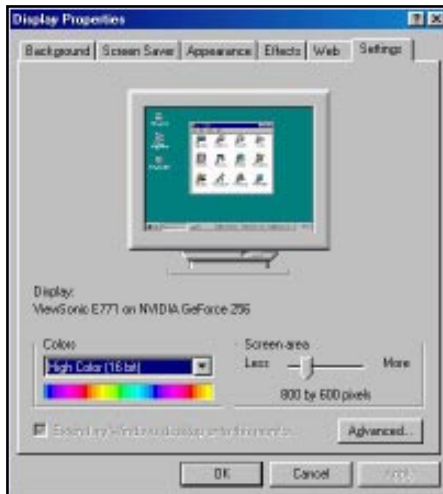
After inserting the **CD_Title**, this will auto-run showing this window.

Step 2: Click on **Install VGA Drivers** button.

Step 3: Click on the **OK** button. This will copy the necessary files into the hard drive.

Step 4: Choose **OK**, to restart the computer now.

New Display Properties:



This function is used for setting Color palette, and Desktop Area.



This shows Hardware Information/BIOS version/Memory Size.

1.2 Install Enhanced Drivers For Windows® NT

You need to install the Windows® NT 4.0 “Service Pack 3”, before installing the driver.

After installing MS-8809 Card, Windows® NT will default to Standard VGA mode 640x480x16 colors.

To install MS-8809 enhanced driver, please follow these step:

Step 1: Insert the **CD_Title** provided into your CD-ROM drive.



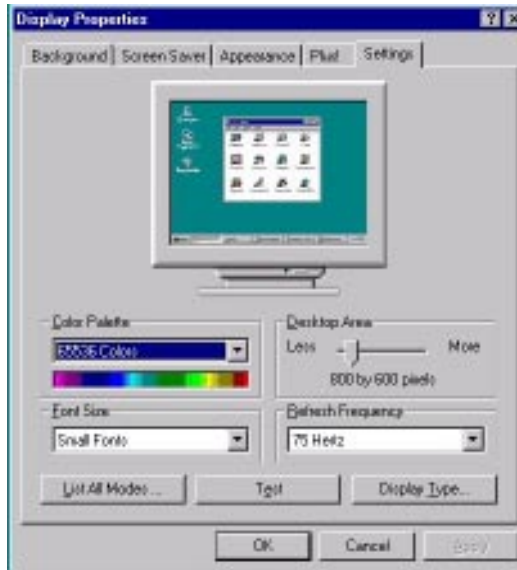
After inserting the **CD_Title**, this will auto-run showing this window.

Step 2: Click on **Install VGA Drivers** button.

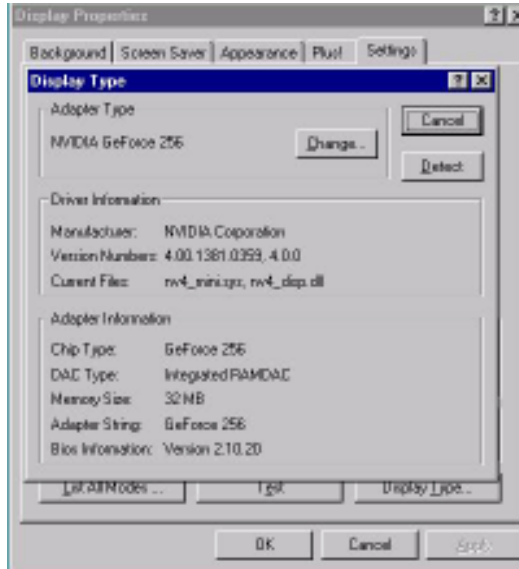
Step 3: Click on the **Next** button. This will copy the necessary files into the hard drive.

Choose Yes, I want to restart my computer now.

Step 4: Click on the **Finish** button.

Using Display Properties new function:

This function is used to show the Display Driver version, chip version and memory size.



This function is used for setting Color palette, Desktop Area and Refresh rate.

1.3 Install Enhanced Drivers For Windows® 2000

After installing MS-8809 Card, Windows® 2000 will default to Standard VGA mode 640x480x16 colors.

To install MS-8809 enhanced driver, please follow these steps:

Step 1: Insert the **CD_Title** provided into your CD-ROM drive.



After inserting the **CD_Title**, this will auto-run showing this window.

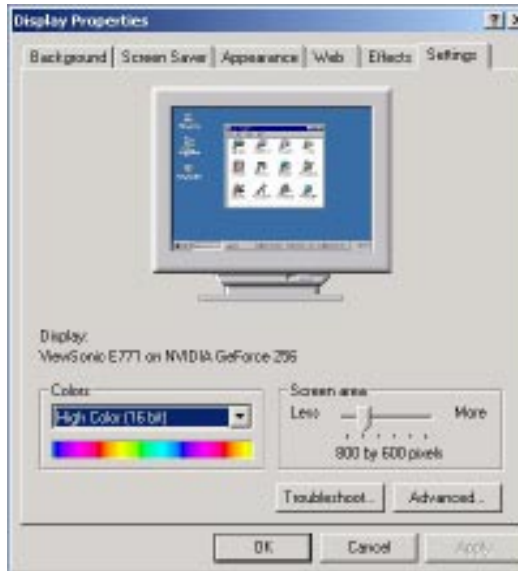
Step 2: Click on **Install VGA Drivers** button.

Step 3: Click on the **Next** button. This will copy the necessary files into the hard drive.

Choose Yes, I want to restart my computer now.

Step 4: Click on the **Finish** button.

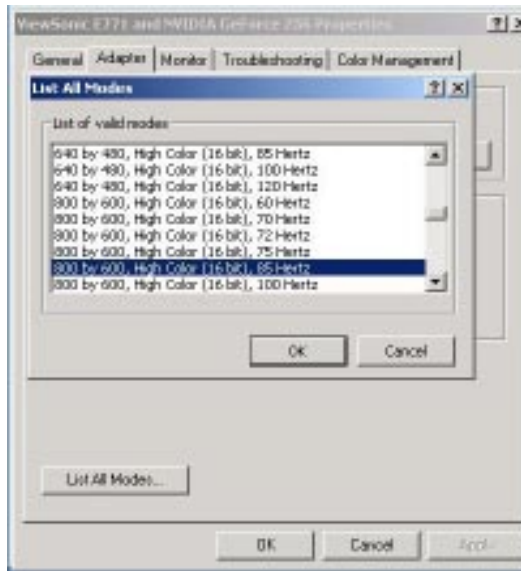
Using Display Properties new function:



This function is used for setting Color palette, and Desktop Area.



This function is used to show the Display Driver version, chip version and memory size.



This function is used for setting Color palette, Desktop Area and Refresh rate.